

WHAT IS CLAIMED IS:

1           1. The combination of a container having an open top and a cover for sealing the open top  
container comprising:

          a one-piece container having a bottom wall and an upstanding peripheral wall  
extending upwardly from the bottom and terminating in an upper edge surrounding  
5       an open top, the upper portion of the peripheral wall defining an inside sealing  
surface;

          a one-piece cover having a top wall with a down turned periphery terminating  
in an outer rim flange for fitting over at least a substantial portion of the upper edge  
of the container, the cover having a downwardly extending sealing flange  
10       circumscribing the cover inwardly of the outer rim flange, the inner sealing flange  
tapering outwardly and having a lower section terminating in a free edge with the  
free edge having a perimeter greater than the perimeter of the inside sealing surface  
of the container peripheral wall so that when the cover is pressed downwardly over  
the open top container the sealing flange free edge is forced inwardly to provide an  
15       interference fit between the lower section of the sealing flange and the container wall  
sealing surface; and

          a pair of latch handles pivotally mounted on opposite sides of the cover  
adjacent the outer rim flange thereof, each latch handle defining an upper and lower  
surface, the lower surface having a protruding locking tab extending downwardly  
20       from the lower surface arranged to snap under a section of the peripheral upper edge  
of the container side wall when the latch handle is rotated downwardly to lock the

cover in place over the container open top with the inner sealing flange engaging the upper portion of the container side wall to secure the cover over the open top, each latch handle further defining a manually actuatable tongue extending outwardly of the locking tab, whereby a user may break the seal and release the cover by pressing the tongue of each latch upwardly with a finger of one hand while simultaneously pressing an area of the top wall of the cover adjacent the latch handle downwardly with another finger of the hand.

2. The container and cover of claim 1 wherein the container inside sealing surface is canted outwardly with respect to the vertical.

3. The container and cover of claim 2 wherein  $\Phi$  represents the inclination of the cover sealing flange with the vertical and wherein  $\Phi$  is within the range of about  $4^\circ$  to  $20^\circ$ .

4. The container and cover of claim 3 wherein  $\Phi$  is within the range of about  $4^\circ$  to  $8^\circ$ .

5. The container and cover of claim 4 wherein  $\Phi$  is about  $6^\circ$ .

6. The container and cover of claim 4 wherein the peripheral wall of the container defines an inner lead in surface which is inclined outwardly at an angle  $\lambda$  to guide the cover sealing flange into the container sealing surface.

7. The container and cover of claim 6 wherein  $\lambda$  is within the range of about  $10^\circ$  to  $20^\circ$ .

8. The container and cover of claim 1 wherein the cover defines an inverted generally U-shaped cavity and further including spaced stop members disposed in the cavity for engaging the upper edge of the container to limit the downward movement of the cover relative to the container.

9. The container and cover of claim 2 wherein the container inside sealing surface is inclined outwardly at an angle  $\Theta$  which is within the range of about  $2^\circ$  to  $5^\circ$ .

1           10. The container and cover of claim 9 wherein  $\theta$  is about  $3^\circ$ .

1           11. The container and cover of claim 2 wherein the top wall of the cover has such resiliency and strength that when pressed downwardly adjacent a latch handle while the manually actuable tongue of the latch handle is pressed upwardly from an unlocked position, the outer rim flange will flex upwardly and outwardly to facilitate the removal of the cover.

1           12. The container and cover of claim 2 wherein the outer rim flange of the cover defines a pair of axels on opposite sides of the cover, each latch handle defining a cooperating groove which fits over the associated axel to provide the pivotal mounting of the latch handles.

1           13. The container and cover of claim 12 wherein the container is generally rectangular in shape.

1           14. The container and cover of claim 13 wherein the axels are spaced outwardly from the cover top wall and each latch handle defines a back wall which engages the cover top wall to limit the rotational movement of the latch handle when rotated in an unlocking direction.

1           15. The container and cover of claim 14 wherein the rotational movement of each latch handle is limited to an angle of about  $90^\circ$  from a locked to an unlocked position.

1           16. The container and cover of claim 15 wherein the top wall of the cover has such resiliency and strength that when pressed downwardly adjacent the latch handles while the manually actuable tongues are pressed upwardly in the unlocked position, the outer rim flange will flex upwardly and outwardly to facilitate the removal of the cover.

1           17. The container and cover of claim 16 wherein the height to thickness ratio of the sealing flange is within the range of about 4.0 to 5.0.

1           18. The container and cover of claim 17 wherein the cover top wall is generally planar with

an upwardly inclined section joined to the outer rim flange to form a dish-like shape to receive the bottom of another container.

1           19. The container and cover of claim 18 wherein the peripheral wall is formed along a radius.

1           20. A combination of a generally rectangular container having an open top and a rectangular cover for closing and sealing the open top when the cover is in a closed position comprising:

5                 a one-piece generally rectangular container having a bottom wall and an upstanding peripheral wall forming side and end walls and terminating in an upper edge surrounding an open mouth, the upper edge defining a pair of horizontally extending handles on opposed end walls, the peripheral wall further defining a continuous upper inside sealing surface;

10                 a one-piece generally rectangular cover having a top wall and an outer rim flange extending from the top wall along side and end walls, the outer rim flange being interrupted by a pair of axels on opposing side walls, and fitting over the upper edge of the container except for the axles in the closed position, the cover having a continuous downwardly extending inner sealing flange canted outwardly at an angle  $\Phi$  to the vertical and terminating with a free edge which has a greater periphery than the periphery of the container inside sealing surface which the free sealing edge contacts in the closed position so that in the closed position the free edge of the sealing fin applies an outwardly directed horizontal pressure to the container inside sealing surface to establish a seal between the container inside sealing surface and the sealing flange; and

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a latch handle pivotally mounted on each axle, each latch handle defining an upper and lower surface with a protruding locking tab extending downwardly from the lower surface and arranged to snap under a section of the peripheral upper edge of the container when the latch handle is rotated downwardly to lock the cover in place over the container open top with the inner sealing flange engaging the upper portion of the container side wall to secure the cover over the open top, each latch handle further defining a manually actuable tongue extending outwardly of the locking tab, whereby a user may break the seal and release the cover by pressing the tongue of each latch upwardly with a finger of one hand while simultaneously pressing an area of the top wall of the cover adjacent the latch handle downwardly with another finger of the hand.

21. The container and cover of claim 20 wherein the  $\Phi$  is within the range of about  $4^\circ$  to  $20^\circ$ .

22. The container and cover of claim 21 wherein  $\Phi$  is within the range of about  $4^\circ$  to  $8^\circ$ .

23. The container and cover of claim 20 wherein the cover defines an inverted generally U-shaped cavity between the outer skirt and the inner sealing fin and further including spaced stop ribs disposed within the cavity for engaging the upper edge of the container wall to limit the downward movement of the cover relative to the container.

24. The container and cover of claim 20 wherein the height to thickness ratio of the sealing flange is within the range of about 4.0 to 5.0.

25. The container and cover of claim 20 wherein the cover top wall is generally planar with an upwardly inclined section joined to the outer rim flange to form a dish-like shape to receive the

bottom of another container.

1           26. A container/lid for storing food stuffs comprising:

          a one-piece lid having a top wall with a downturned peripheral wall and an annular downwardly depending fin tapering outwardly, the fin being disposed inwardly of the downturned peripheral wall;

5           a one-piece container with a circumscribing wall having an inner surface and a peripheral upper edge defining a mouth, the upper portion of the inner surface of the circumscribing wall defining an outwardly tapering inner sealing surface, the annular outwardly depending fin arranged on the lid such that when the lid is mated with the container, the fin seats against the inner sealing surface of the wall applying  
10          horizontal pressure thereto and establishing a seal between the wall and the fin; and

          a pair of latch handles pivotally mounted on opposite sides of the cover, each latch handle defining an upper and lower surface with a protruding locking tab extending downwardly from the lower surface and arranged to snap under a section of the peripheral upper edge of the container circumscribing wall when the latch  
15          handle is rotated downwardly to lock the cover in place over the container open top with the cover fin engaging the inner surface of the container wall to secure the cover over the open mouth, each latch handle further defining a manually actuable tongue extending outwardly of the locking tab, whereby a user may break the seal and release the cover by pressing the tongue of each latch upwardly with a finger of one  
20          hand while simultaneously pressing an area of the top wall of the lid adjacent the latch handle downwardly with another finger of the hand.

1           27. The container and cover of claim 26 wherein the fin tapers outwardly at an angle of about  
4 to 8 degrees.

1           28. The container and cover of claim 27 wherein the cover is made of polypropylene.

1           29. The container and cover of claim 27 wherein the container is made of polycarbonate.

1           30. A container/lid for storing food stuffs and the like comprising:

          a one-piece rectangularly-shaped container having a bottom wall, a pair of  
side and end walls extending upwardly from the bottom wall at a slight angle to the  
vertical and terminating in an upper edge surrounding a mouth, the upper portion of  
5 the side and end walls defining an interior rectangular sealing area;

          a one-piece lid having a depressed planar top wall which merges into an  
upwardly extending medial portion joined to a downwardly extending outer rim skirt  
circumscribing at least the major portion of the lid, the lid having a downwardly  
extending sealing fin disposed inwardly of the skirt, which fin has a free edge with  
10 a slightly greater periphery than the periphery of the container sealing area so that the  
free edge of the fin is flexed inwardly to form an interference fit with the rectangular  
sealing area of the container end and side walls when the lid is seated over the  
container mouth; and

          a pair of latch handles pivotally mounted on opposite sides of the cover  
15 adjacent the outer rim skirt thereof, each latch handle defining an upper and lower  
surface with a protruding locking tab extending downwardly from the lower surface  
and arranged to snap under a section of the peripheral upper edge of the container  
side wall when the latch handle is rotated downwardly to lock the cover in place over

20 the container open top with the inner sealing flange engaging the upper portion of the container side wall to secure the cover over the open top, each latch handle further defining a manually actuatable tongue extending outwardly of the locking tab, whereby a user may break the seal and release the cover by pressing the tongue of each latch upwardly with a finger of one hand while simultaneously pressing an area of the top wall of the lid adjacent the latch handle downwardly with another finger of the hand.

1 31. The container/lid of claim 30 wherein the outer rim skirt of the lid is interrupted on opposite sides by a generally cylindrical axel spaced from the depressed top wall and wherein the latch handles are mounted on the axels.

1 32. The container/lid of claim 30 wherein the top wall of the lid has such strength and resiliency that when pressed downwardly adjacent the latch handles while the latch handles are forced upwardly the edges of the top wall will bow slightly upwardly adjacent the latch handles and release from the container.